

# 20TH ALASKA SCIENCE CONFÉRENCE

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## MAN AND THE ENVIRONMENT

Public Policy for the Environment  
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Like Frank Darling, I prepared a manuscript before coming here; but after having listened to the many of the sessions during this Alaska Science Conference, particularly the messages of our two luncheon speakers prior to today, it seems to me that I could do something more appropriate than simply to give you an abstract of the paper. In any event I have turned one over to Victor Fischer. Instead, it seems more appropriate for the present purpose to try now to put into some form of synthesis, into some type of context the discussions we have been having about the questions of environmental policy for Alaska. In doing so I shall not try to speak of the immediate problems to Alaska, that is to say the specific problems. Rather I will try to place Alaska's policy need at the present time in relationship first of all, to the United States in general, then to the globe itself, and the biosphere, which Frank Darling spoke about and which, even now, we are constrained to bring under some form of policy organization in the interest of human survival.

But first, I think, it may be in order to say a word about policy. We have discussions about ecology and what ecology means. We have been using the word policy, but we have had very little comment about what we mean by policy, and I can tell you what it means to me. In a broad sense, policy includes the values, goals, laws, and ethics of people, and it is

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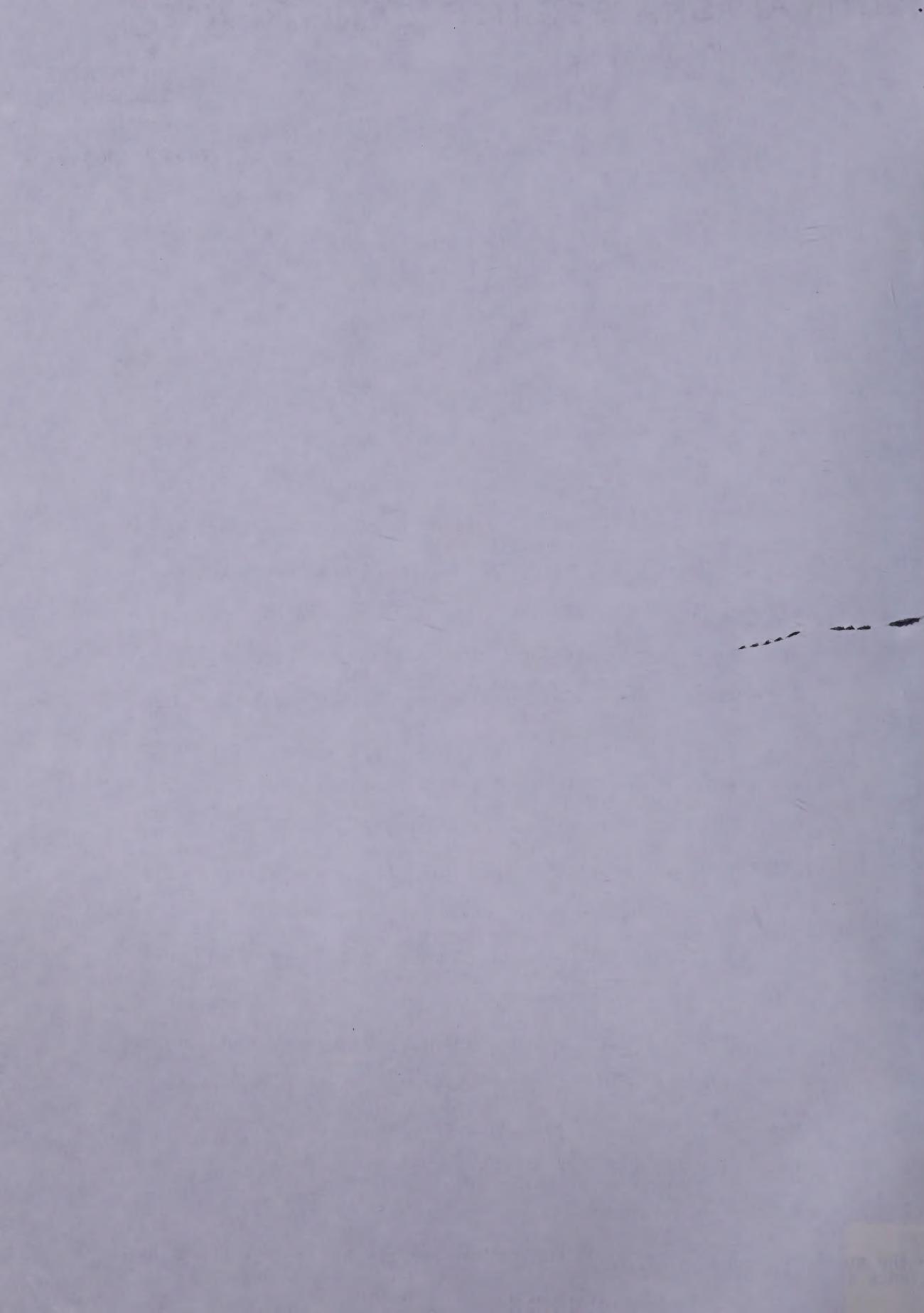
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inseparable from their life-style, real policy. It is not only what people profess, what their governments profess, what they profess as individuals or groups, but it is also what they do. The form and substance then of the institutions and practices that add up to what we call policy are closely related to technology and which, of course, is a dynamic changing force in our lives. It is related to ideas, and to the dynamics of population to the value structure I have suggested. Policy, basically, is the outcome of politics. It is the outcome of social decision process as to what is preferable.

Now, as we look at the relationship of science to this policy process, we need always to keep in mind the thing that Bob Scott reminded us of just a few minutes ago: that policy maybe based upon science, can utilize science, but science is not self-explanatory. All of the scientific knowledge in the world will not accomplish anything until it is made operational through institutions, through administrative practices, through programs, through budgets, through systems if you will. Now, I would like to focus the broad consideration of policy upon the more specific one of the environment, although this is not very specific to be sure, because itself is a very broad and complex concept. But, I think, the question that is particularly pertinent at this time and needs to be understood in its full meaning here in Alaska is: why the environment has become such a focus and indeed international concern. Why now certainly this concern is something other than the conservation movement that we have been familiar with in the past. When we speak of the environment, we are not talking about the allocation of resource use, although it includes that. We are talking about something far more fundamental, far more pervasive.



Now what my remarks will attempt to do is to explain what this broad and pervasive area of policy really is, not just what it looks like on the surface, but what it is underneath. But in order to do this and make it relevant to the Alaskan situation, it seems to be best to examine this meaning of environmental policy from the point of view of where we are here in Alaska, in this place, and at this time. Now, Alaska is becoming of age, so to speak--that is to say, to statehood and to a new age of techno-economic development under unprecedented circumstances for this earth. And it comes into age under circumstances that on the one hand offer tremendous opportunities to this commonwealth and the people here for a better life, for a richer life, for a rational life, for a more totally satisfying life than most of the people on the earth have known. On the other hand, there are also great potentials in the situation which Alaska now finds itself, that is, from mass frustration for social conflict and for estrangement from the rest of the United States, and I emphasize that very last point. I think, it is very real, and there may well be some unhappy times in some quarters in Alaska when the obsolete perception and ambitions of people here in Alaska find themselves in confrontation with a new approach to life and politics that it rapidly shaping up through the United States as a whole and is present here in Alaska too!

Now let me just enumerate, to be more specific, a number of the considerations in which I suggest there could be this frustration, conflict, and estrangement. It is evident that here in Alaska in the minds of many of its citizens that there is an image of the traditional American frontier. There is a feeling in the minds of some people here that Alaska has a right to have its frontier; it has a right to go through the same



kind of economic development; the same type of 'get rich quick'; the same philosophy of come and get it that all the rest of the United States has had. And there is going to be moral indignation when some federal bureaucrat, some act of congress, some conservation group say; No! The frontier concept is obsolete. Alaska cannot be that kind of frontier. It has no place in the world in the 1970's. Well, why doesn't it? We will come to that. But there is another element in the picture that can lead to frustration, conflict, and estrangement. And that is in the wealth itself. You know so often the story of unhappiness of families occurs when some rich uncle dies and leaves a lot of money. The family begins to fight over the proceeds. Now the peculiar kind of wealth that Alaska has suddenly come into is a particularly mischievous kind. Now, I do not for a moment want to appear to be knocking riches from oil, but I would like to remind the conference (And I am not the first to do it.) that oil has often proved a curse as a benefit.

If you look at a country in which there has been massive dependence upon oil, you see along with good things an increase in social and political instability, corruption, and ecological deterioration. Now I do not suggest that these things are inherent to oil or the production of oil. And I am inclined to share Frazer-Darling's optimism that the oil industry and the industrial sector, general in society, has also matured a great deal in recent decades. But I do think we have to refute the history if Alaska's story is to be different than that of many other countries.

Now there is a problem, which is the heavy responsibility which sisterhood places on this commonwealth. I was for four years director of Research and Publications for the Council of State Government, and I do not,



therefore, speak about state government simply from an academic ivory tower. If Alaska rises to the occasion as a state, and I am speaking now about the government itself, the political parties in Alaska, the government in Juneau, the employers of the state government, if it rises to this challenge of the oil and the development of Alaska, it will do, at least in my judgment, what other states have done. I think the general record of state government in the United States for playing a far-sighted, responsible, and effective role in the nation's development has been very disappointing. There are bright spots; those states which seem to have the will to govern themselves. But one cannot say this for the great number of the fifty states. This is just a fact of life. You can challenge it; the burden is on someone to disprove it. There is abundant testimony to the failure of state government to be effective in a planning and leadership and guiding role. By and large the states lack the will to govern responsibly; and this is something that, perhaps inherent in our constitution of in the way the parties work, in the states, where they lack competent personnel because they will not provide appropriate institutional arrangements to obtain it. They lack effective administrative organization; they lack the ability to marshall knowledge, plan, or execute plans. Dr. Dedijer outlined, the other day at lunch, a rather sad picture of the extent of which the states use scientific knowledge in the development of their own futures.

And finally the states by and large do not have the broadly representative and responsive character, that I think we would have to concede in most cases, that the federal government has. And I am aware of the infirmities and inequities in the federal government in certain respects.



But history of state government is: it is much more susceptible to control by powerful and particularized cliques and economic interest groups. Now these are what you call political facts of life, which have been demonstrated over the years in the other states. It is a good question to ask: Why should Alaska be different? Why should we assume that this state is going to have a picture which is quite different from that which we have seen in most of the other states?

And finally, Alaska also apparently faces major problems of ethnic and cultural relationships, at a time when the dominant culture (some spoke of the Euro-American, this so-called white American), at a time when that culture is under massive challenge from within, as well as from without, and indeed in many ways is showing evidence of disintegration. I have attended a number of these sessions on the various concerns here of the Eskimo and Indian people in Alaska and have heard a good deal about acculturation, the influence of the culture which is coming from the south into Alaska. And the word acculturation, I am not sure what that word means, because I wonder acculturation to what we are all being acculturated? What is the culture of the future? I think this has been suggested by a number of the anthropologists here that somebody ought to study the white man in Alaska, or someone suggested there ought to be a foundation to study the white, Anglo-Saxon, protestant population of the United States, which would include the white northwest catholic, or Jewish population. It is all pretty well in the past of one large macro-culture, but it is undergoing all kinds of change now and instability. What kind of culture is that? And when we talk about the interaction between the traditional cultures in Alaska and this so-called white-European derived culture, what do we mean? Certainly there is a large area of confusion



here. And in many ways the so-called native peoples of Alaska and the newcomers in Alaska are on a common footing, on a footing of equality in that none of them have institutions at this point in the history of the world that are really appropriate to grapple with the problems that we have.

Yesterday, Dr. Glass spoke of this inadequacy of our education structure and institutions, and I would add our political structure institutions. To cope with the kind of problem that has now developed in this world, it is then perhaps appropriate that we turn from Alaska to this world to understand how we got into the predicament in which I suggest we find ourselves. And I would go back again to the point that was stressed by Frazer-Darling earlier this morning and Bently Glass yesterday, and say once more that where we are no is at the end of a long journey--a journey of perhaps 25,000 years--that began sometime in the Plesitocene, the great ice ages. During that interval man began to occupy the habitats of the natural world. It took him perhaps 25,000 years to do this. But he has now done it in the 20th century. The human animal has now fully occupied all of the niches, as the ecologists would say, or those natural habitats on the earth that are easily available to him, and he has used all kinds of culturally derived methods such as irrigation, heating systems, and so forth, to invade and occupy areas that are not hospitable to him. The real estate on the earth is taken up; it is all subdivided, and we are at the end of the age of infinity. We can no longer pretend that there are horizons and frontiers, and this is why the concept of the frontier of Alaska is utterly obsolete and inappropriate. This is why, however, that we are a frontier-oriented people, as the American people, who have



been situated in vast continental land masses so that the world's size large. This is why we could for so long act as if there was an infinite environment. But now we do find ourselves emerging into the era of spaceship earth, as it has been called, and I suggest that this is an utterly new situation for the human species. This is not just a change of magnitude but, I think, in a situation, which I firmly believe that is a change of state. The whole concept of spaceship earth, I suggest, is a very radical concept with tremendous implication for politics, for economics, and for society in general. Now there are many other manifestations of this emerging into the world of the spaceship earth. Human populations (and we have had this statement made again and again) have reached a critical level in the world generally, but although perhaps not necessarily in Alaska. Population growth in the judgment of well informed biologists, demographers, ecologists, must be arrested. And will be arrested by one means or another in the relatively near future. In any case, it will not be arrested without a great deal of pain and travail and, indeed, perhaps disaster.

The degree to which we can mitigate this disaster and this pain will depend again upon wisdom and our use of science. But clearly the handwriting is on the wall. As Dr. Glass pointed out yesterday, you cannot maintain the exponential indefinitely for this is not in the nature of physical reality. It simply will not work. No, in addition, to the escalation of population, we have had this escalation of science-based technology and of information. It is again quite clear, as ~~Frazer-Darling said~~, that the extent of this knowledge and this technological capacity has escalated beyond the capacity of our institutions to handle it wisely. And now we are also in the age of the technological overreach. Technol-



ogy seems to be self-augmented, it seems to have a momentum of its own. I say seems because it really does not. What technology does is what we do with it, and what we have done with it, you see, is to perceive it, from the viewpoint with the perceptions of the past, when the earth was small, the fit, so to speak, between man and his environment was loose. He could afford to make errors; he could afford to ruin an environment because all he had to do was to pick up and move away. Sometimes like the Mongols and the Turks, he had to take somebody else's environment. But by and large, at least in the earlier periods of human society, the earth was so big that he did not have to worry greatly about the impact of his technology. It was not powerful enough; it was not humorous enough. Now, I suggest, that when you move from an illusion of an open-space society and from an open-space world into the world as the astronauts saw it and as we have all now seen it from outer space, the major orientation of attitude and social effort is indicated; we have many pessimistic prophets as to what may happen if man does not make this transition, if he does not, so to speak, re-orient himself to the realities of spaceship earth. We have heard this from very competent biologists, such as Paul Erlick, C. S. Hollings, Garrett Hardin; we have heard it from sociologists, and economists. It is not a question, you see, of whether we really care about the environment in one respect or whether we want to do anything about it all. If we are really concerned with the survival of the human species, we have no choice, and it is desirable, however, to recognize the concept of the biosphere, the unity. The ecological unity of the earth is in a very large way, although not in all details, comparable to the life support system of the spaceship. You cannot behave



irrationally with respect to that system and that spaceship; and you cannot be responsible about tinkering with its gadgetry, and you cannot start fighting back and forth in the isles. You also cannot be altogether inhibited about your right to exploit some aspect of that spaceship environment, and certainly you have to pay attention to concept of carrying capacity.

No the whole life view, I suggest, of the world of the spaceship is revolutionary. Here I come back again to the fundamental equality of circumstance in Alaska: The Eskimo and the Indian and the European. The world preception of the Eskimo, I would suggest, is no more valid than the traditional world view of the American settler, and may be it may be even more valid. But there is a very fundamental equality here that ought to be recognized. We all have to build something new because we have worked ourselves into a situation that is new. Now there are people who see this and they are not all in universities by any means. Indeed the universities, I regret to say, have been slow. We in the academic world sometimes like to point a finger of scorn, you know, at the politician, who is usually a little stupid according to some ways of thinking and usually corruptible. And yet I would say, that perhaps the most realistic, the most perceptive uniting thought and action on this at the present time is going on in government, in some of the administrative agencies and at the present time most particularly in the Congress of the United States. And I think that there is insufficient awareness of the extent to which the Senators and Congressmen are certain of their men, and their committees are concerned and very much concerned and very intelligently concerned and very realistic.



tically concerned with the predicament that we are in. It is not for nothing that we now have at least thirty-five bills introduced into the Congress that in various ways propose to either establish or complete a national policy for the environment or to provide mechanism through which such a policy could be developed. The Nixon administration has established an environmental quality council, consisting of the president himself, as chairman, and selected members of the cabinet and the vice president. It was suggested by Robert Kahn, writing in the CHRISTIAN SCIENCE MONITOR that the president did not do this because he was so interested in the environment and its problems that he was not necessarily strongly oriented this way, although he did make one address on this subject during his campaign. What Kahn suggested was that the chief executive appoints an environmental quality council was established as a result of public pressure.

Another demonstration of the extent of public awareness and the Congressional realization of this took place when Governor Hickel came up for confirmation as Secretary of the Interior. I hardly need remind you of the nature of the hearings which took place; TIME MAGAZINE has referred to what it calls the education of Wally Hickel, not only in the period of confirmation, before confirmation, but in the events that occurred since, and more particularly the Santa Barbara oil spill, which is only one of many. It may well be that Governor Hickel represents in a very good way the process of re-orientation that we all have to go through under these circumstances, that his earlier life experience lead him to a set of conclusions that he now finds himself constrained to change, and



I suggest possibly, not merely because of political pressure but because he is in a position to see things that he could not see before from where he was situated. This concern that is manifest in the Congress and over a new responsibility, a new formulation of responsibility for the environment, is a part of what some people call the new politics.

Bob Scott referred to the underground press that we see on the college campuses these days this concern. Peter Drucker, in a very preceptive and pathetic article in 1965, predicted that the quality of life, the politics of the new era, not the old issues of the New Deal, although these were still the issues which were being flogged in the last campaign by Mr. Humphrey and Mr. Nixon, and I suggest that one of the reasons of the great lack of enthusiasm for either candidate on the part of almost anyone under thirty was the irrelevance really. It seems that the candidates could not forget that F.D.R. is resting in Hyde Park, and that the Depression is over, that we were facing a completely new kind of world. Now, so-called new politics may be misguided in many ways; it may be hollow and irrational, but I suggest for all its irrationality it could hardly be more irrational than the preservation of many of our 19th century attitudes as the 21st century approaches. The refutation of the irrationality of the kids, if you do not like the irrationalities, is to get with a high order of irrationality ourselves.

Let me conclude then by trying to state as honestly as I can what I think the environmental policy issue is really about, and Dr. Maris really suggested it in his introduction. The great challenge to Alaska, as I see it in the environmental policy issue, is to the United States as a whole. It is not oil but its intelligence and ethics. Basically we are concerned



with the moral problem. We hear a good deal about the ecological crisis. Well, there is an ecological crisis for sure, and it has been documented. But the crisis we ought to be concerned about primarily is a crisis of the will. A crisis in the ability of man to unite intelligence with a new order of ethics. Now this is a challenge, and it is common to all society. The general assembly of the United Nations has acted on this. The biosphere conference meeting in Paris, just a year ago convened by UNESCO has resolved about in series a very significant resolutions, some of which are leading to action on this matter. We are not talking about the small ethics of the cash register here, cash registry honesty, and I do not disparage that. But that is not the kind of ethical issue that confronts us. It is the large ethics of the purpose and values and outcomes of life. There is, as I suggested, an ecological crisis or a crisis of man in relation to his environment, but it is a moral crisis born out of man's disrespect for the very process which brought him into existence and sustains him on this very improbably planet. The consequences of this respect, as Frazer-Darling has so well put it, is disrepection. Disrespect is an evidence of lack of understanding, lack of regard, unwillingness to take time, the unwillingness to be thoughtful. And, I suggest, that this respect for the world that has evolved here over several millions of years, which we know to be unique in the solar system, and whatever its statistical probability, such another world is in **the universe**, that mathematical statistic's figure is quite **irrelevant to our problem** until massive changes occur in our energy systems and **our physiology**, a world upon which is congenial to life, as we know it, is far beyond the reach of man in any personal sense. Now we know something about this from



science; and we know a great deal, a great deal more than we apply about this highly improbable complex and interrelated eco-system called the earth.

As Bob Scott said in using the beautiful words of Edward Vincent Millay, "We have had a really mediocre knowledge, but we have not found a means to organize it." And, I suggest, that we have not found a means to organize it because the propose and will has not been there. And a major policy issue is, therefore, I think, before us is to somehow find a way to articulate the goal and to help muster the will, and I would suggest that if needed, as I believe it is, we are confronted fundamentally with a moral and an ethical problem that: no man can be ethical by himself. How can you be ethical if you were thrown out, and you were the last man on earth, you see. It is a point that Garrett Hardin has beautifully illustrated in his essay on the tragedy of the commons with respect to the problems of population control. We cannot be ethical just by ourselves; we would not know how to be. Now, if we went an ethic for the environment, we are really talking about an ethic for man. Man in relation to his environment. There is the most false dyctomy, I think of all the false dyctomies in the world, is one that juxtaposes man with nature, or even man and environment. Man is a part of his environment; he is inseparable from it as he is inseparable from nature. If we are disrespectful or contemptuous of nature, we are contemptuous indeed of ourselves, and it is not merely being facetious to say that a policy for the polar bear or a policy for the Alaska salmon is also a policy for man. If you are contemptuous of life of any part of it, you are contemptuous of the system which brought you into existence, and, I suggest, it is a highly immoral and dangerous point of view. Now then, as to the specifics for



a national policy for the environment, I suspect that our disputation will be in a position to continue. I know that with respect to the Senate bill 1075; a bill introduced by Senator Jackson, Senator Interior Committee, to declare a national policy for the environment. This bill has passed the Senate and is now in the House of Representatives. We have in this measure a concrete and specific, action-forcing piece of legislation which is intended to help us be moral on this question of the environment and to unite morality and intelligence. I think, therefore, that my point has surely been made that the task of assessing alternatives with respect to the environment and arriving at specific policies for the human treatment of the environment can begin to acquire purpose and direction once we have understood what the challenge really is. But I would only add this one note of warning so that we know what we do, that if we follow the direction that I have suggested toward creating institutions and attitudes and values and procedures appropriate to an age of spaceship earth, this effort will take us very far from where we are now quite far from the kind of society in which we now live. Not necessarily one less congenial to us but a different one and this, I think, we have to be quite frank and quite honest with ourselves and recognize that what we are speaking about now is fundamental change in human conditions.

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